

Application Type Renewal  
Facility Type Industrial  
Major / Minor Major

**NPDES PERMIT FACT SHEET  
ADDENDUM**

Application No. PA0244449  
APS ID 999951  
Authorization ID 1284833

**Applicant and Facility Information**

Applicant Name	<u>Marcus Hook Energy LP</u>	Facility Name	<u>Marcus Hook Generating Station</u>
Applicant Address	<u>100 Green Street</u> <u>Marcus Hook, PA 19061</u>	Facility Address	<u>100 Green Street</u> <u>Marcus Hook, PA 19061-0426</u>
Applicant Contact	<u>Kevin Collins</u>	Facility Contact	<u>Jennifer Eisenmann</u>
Applicant Phone	<u>(609) 364-2470</u>	Facility Phone	<u>(610) 364-2470</u>
Client ID	<u>221135</u>	Site ID	<u>525172</u>
SIC Code	<u>4911,4931</u> <u>Trans. &amp; Utilities - Electric And Other</u> <u>Services Combined, Trans. &amp; Utilities -</u> <u>Electric Services</u>	Municipality	<u>Marcus Hook Borough</u>
SIC Description		County	<u>Delaware</u>
Date Published in PA Bulletin	<u>01/09/2021</u>	EPA Waived?	<u>No</u>
Comment Period End Date	<u>02/08/2021</u>	If No, Reason	<u>Major Facility</u>
Purpose of Application	<u>Application for a renewal of an NPDES permit for discharge of treated Industrial wastewater.</u>		

**Internal Review and Recommendations**

Draft permit was issued on December 18, 2020.

Comments were received from EPA as below:

According to our Memorandum of Agreement, the Environmental Protection Agency (EPA) Region III has received the draft National Pollutant Discharge Elimination System (NPDES) permit for:

**Marcus Hook Generating Station**  
**NPDES Number: PA0244449**  
**EPA Received: December 21, 2020**  
**30-day response due date: January 20, 2021**

This is a major permit that discharges to the Delaware River. EPA has chosen to perform a limited review of the draft permit based on the wasteload allocation (WLA) requirements of the approved Delaware River PCB TMDL, WET, Steam Electric Power Generating ELG (40 CFR Part 423), and 316(b) requirements. EPA has completed its review and offers the following comment(s):

- I. As discussed with Dana Hales on 1/19/21, the following changes to the draft permit and/or fact sheet will be addressed:
  - a. The permit applies 40 CFR 423.12 BPT requirements, but does not apply the applicable BAT requirements

Approve	Return	Deny	Signatures	Date
X			<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	March 3, 2021
X			/s/ Pravin C. Patel, P.E. / Environmental Engineer Manager	March 18, 2021
X			/s/ Thomas L. Magge / Program Manager	March 18, 2021

Internal Review and Recommendations

at 423.13:

- i. (a) – related to no discharges of PCBs (this is also a requirement of 423.12(b)(2)),
  - ii. (b)(1) and (b)(2) – related to TRC in discharges of once through cooling water (while we discussed this section, please clarify whether this part of the ELG addressing once through cooling water actually applies to this facility),
  - iii. (d)(1), (2) and (3) – related to level of pollutants discharged in cooling tower blowdown.
- b. Clarification is going to be provided on the WET data summarized in the fact sheet regarding the dilution series used by the facility and how PADEP evaluated WET toxicity.

Based on the review of the comments we offered the following responses by email:

1.a. The following are the details of applicable BAT requirements at 423.13:

i.(a) We acknowledge that the regulations 40 CFR 423.12(b)(2) and 423.13(a) are applicable to this discharge. However, presence of PCBs has been documented in the facility's discharge due to the intake water from Delaware River. According to the applicant the facility is PCB free and the Delaware River water is the only potential source of PCBs in the discharge. Based on the Delaware River PCB TMDL requirement, the facility continue to implement the PCB PMP to achieve the PCB loading reduction goal. The standard condition regarding the PCB monitoring and PMP is included in the permit. DEP believe these facts and requirement could satisfy the applicability of the referenced regulation.

ii. (b)(1) and (b)(2) Since facility doesn't discharge any once through cooling water this part of the ELG is not applicable.

iii (d)(1) and (d)(3) The existing TRC limit in the permit addresses the requirement of Free available chlorine.

To comply with the requirement related to the 126 priority pollutants, the following standard condition will be incorporated in Part C of the final permit.

“Cooling tower blowdown discharges shall contain no detectable amounts of the 126 Priority Pollutants listed in 40 CFR Part 423, Appendix A, that are contained in chemicals added for cooling tower maintenance, except for Total Chromium and Total Zinc. When requested by DEP, the permittee shall conduct monitoring or submit engineering calculations to demonstrate compliance with 40 CFR 423.13(d)(1).”

We want to reiterate that the intake water source and the receiving water source is the same. We have a chemical additive program in place to control the usage of chemical additives at the cooling tower. Also, the permit does have a monitoring requirement for Whole Effluent Toxicity for the discharge. DEP believes these facts and requirements meet the compliance with the referenced regulations.

Chromium, Total (0.2 mg/l) and Zinc, Total (1.0 mg/l) limits will be incorporated in the permit.

lii (d)(2) The following standard condition will be incorporated in Part C of the final permit to meet compliance with this requirement.

“Chlorine or other approved biocides may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the permitting authority that discharges for more than two hours are required for macroinvertebrate control. Simultaneous multi-unit chlorination/biocide application is permitted.”

1.b. For WET testing, according to the existing permit, the dilution series should be: 1%, 2%, 35%, 60% and 100% and historically the facility was using the dilution series 6.25%, 12%, 25%, 50% and 100%. For the purpose of renewal application, both dilution series were used for different tests. Specifically, EPA's concern was regarding the testing done on 06/26/2018 for which the dilution series used was “1%, 2%, 35%, 60% and 100%. WET toxicity was evaluated based on the reported NOEX/LC50 data as shown on the draft fact sheet.

Moving forward, the toxicity will be evaluated using the DEP's WET Analysis Spreadsheet based on the “Test of Significant Toxicity” approach and the standard condition is incorporated in the permit accordingly.

**Internal Review and Recommendations**

No other comments were received from EPA.

Comments were also received from the permittee regarding WET, Annual Inspection associated with stormwater runoff and Cooling Water Intake Structure requirements in the Part C of the permit. See below:

Marcus Hook Energy, L.P.  
 NPDES Permit No. PA0244449  
 Comments to Proposed Draft Permit dated 12/18/2020

Comment Number	Section	Permit Condition	Page Number	Condition	Marcus Hook Energy Comment
1	Part C, II. Whole Effluent Toxicity (WET)	A. 1	21	The permittee shall collect discharge samples and perform WET tests to generate survival data for diadoceran, <i>Ceriodaphnia dubia</i> and fathead minnow, <i>Pimephales promelas</i> .	The Facility requests the removal of the requirement to sample for the fathead minnow, <i>Pimephales promelas</i> . This species was not impacted by the Facilities effluent discharge, as show in the Departments analysis on page 13 of the NPDES Permit Fact Sheet. The DRBC also removed the requirement to test for <i>Pimephales promelas</i> in the 2019 docket renewal (D-2008-021 CP-3).
2	Part C, I. Other Requirements	H	21	The permittee shall conduct an annual inspection in association with the stormwater runoff and collection at the site. A completed and signed Annual Report must be submitted to DEP no later than 28 days after the completion of the associated inspection activities.	The Facility requests the removal of this condition. Marcus Hook Energy does not have a Stormwater Discharge Permit. The land is leased from Sunoco who maintains the Stormwater Discharge Permit and the stormwater treatment facilities. All stormwater drains at the site are routed directly to Sunoco's treatment facility. There is no discharge of stormwater from the facility. Therefore, there is no point of discharge of stormwater or location to inspect.
3	Part C, I. Other Requirements	B	27	Technology and operational measures employed at the cooling water intake structures must be operated in a way that minimizes impingement mortality and entrainment to the fullest extent possible.	Marcus Hook Energy does not own the cooling water intake structure and as such, has no ability to control the operation or maintenance associated with the intake structure. Sunoco, the owner of the intake structure, has the ability to withdraw water from the intake structure independent of Marcus Hook Energy's operation. There is no way for Marcus Hook Energy to certify that "operational measures are employed" by this third-party to minimize impingement or entrainment.
4	Part C, I. Other Requirements	C	27	The location, design, construction or capacity of the intake structure(s) may not be altered without prior approval of DEP.	See comment number 3. Since the intake structure is owned by a third-party, Marcus Hook Energy has no control as to whether or not this third-party makes any changes to their intake structure.
5	Part C, I. Other Requirements	E. 2	27	Monitor the actual intake flows at a minimum frequency of daily, including measurements of cooling water withdrawals, make-up water and blow down volume or alternatively monitor cycles of concentration at a minimum frequency of daily.	See comment number 3. Marcus Hook Energy is not able to monitor the actual intake flows because the associated equipment is owned by a third-party.
6	Part C, I. Other Requirements	E. 3	27	Submit the results of monitoring in paragraph E.2 above on the Cooling Water Intake Monitoring Supplemental Report (3800-FM-BCW0010) as an attachment to monthly DMRs.	Marcus Hook Energy does not own or operate the intake structure. As an example, regarding the "Actual Through Screen Velocity" column on the Supplemental Report, Marcus Hook Energy does not have the ability to monitor this parameter. No meter exists, at least not by Marcus Hook Energy, to satisfy this requirement because the Facility does not own the intake structure.
7	Part C, I. Other Requirements	G	27	The existing barrier net designed to reduce the intake velocity to less than 0.5 feet per second shall be inspected annually and repaired as needed.	See comments numbers 3 and 6.
8	Part C, I. Other Requirements	H	27	The permittee shall, on an annual basis, submit a report describing any modifications to the operation of any unit at the facility that impacts cooling water withdrawals or operation of the cooling water intake structure(s) during a calendar year. If not applicable, the permittee shall submit a statement certifying that no modifications have occurred in lieu of a report. The annual report or statement is due by January 28 of each year. A summary of the annual barrier net inspection and repairs shall also be included in the annual certification.	See comment number 3. Marcus Hook Energy cannot certify that no changes to the operation of the cooling water intake structure occurred because it is owned and operated by Sunoco. Decisions to modify the structure are not shared with Marcus Hook Energy nor can they be controlled by Marcus Hook Energy.

Based on the review of permittee's comments, Cooling Water Intake Structure Condition in the permit has been revised. No changes have been made to the WET and Annual Inspection conditions.

Nothing else is changed in the permit.  
 Finalizing the permit with referenced revisions.